City of Edmonton

HOUSING MARKET REPORT

1987

Planning and Building Department
June, 1987

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INTRODUCTION

This report is an examination of the present and future Edmonton housing market. Within the study, there is a focus on projections and market activity, all in relation to the City's interest in housing and residential land development.

This report has two purposes:

- to provide a consistent analysis and forecast of housing activity for use within the City of Edmonton civic administration;
- to provide housing related data to the development and building industry.

The need for this examination arises out of the considerable turbulence experienced by Edmonton's housing market in recent years. As example of this turbulence, housing starts peaked at 10,515 in 1981 and declined by 82% to 1,910 in 1986. Servicing of residential land, as measured in potential dwelling units, declined from 5,587 units in 1981 to 1,285 units in 1986. Mortgage rates have been high and then dropped significantly, from a high of 21% in 1981 to 10% in 1987 (March) lowering the carrying costs of home ownership. Rental vacancy rates went from 1.6% in 1981 to 9.5% in October 1984 to 4.6% in October 1986.

The City is interested in these rapid changes in the housing market for a number of reasons. First, the City has substantial residential holdings and wishes to market its land without adverse impacts on the private housing sector. Second, there are demands for additional municipal services for new suburban housing developments which have cost implications for the City. Finally, in the current economic circumstances, the City should ensure its policies and activities do not hinder the contribution the housing sector can make to economic growth.

The forecasts used in this report are based on the City of Edmonton Forecast Committee's report of June, 1987 and cover the period 1987-1990.

The report is in four sections. Housing demands is discussed in section 1; the supply of new housing is examined in section 2; section 3 looks at the outcome of the demand for and supply of housing as measured by market indicators such as housing prices and apartment vacancy rates. The fourth section presents forecasts of housing starts by type and location and residential and servicing.

PART 1 - HOUSING DEMAND

Among the most significant variables affecting the demand for housing are demographic factors including population, age structure and household changes. This part of the report discusses these variables, examines household formation trends and provides a forecast of the expected number of households and associated housing requirements as they are influenced by economic conditions.

1.1 Population

Past Population Growth

- The City of Edmonton population is estimated to be 576,000 in 1987, compared to 571,500 in 1986.

- Over the period 1981 - 1986, Edmonton's population grew by 50,000 or an average annual rate of 1.9% (Table 1.1).

Population Projections

- The population growth rate to 1990 is forecasted to be approximately 1% per year giving a 1990 population of approximately 597,700 (see Table 1.2). This increase represents a growth rate of half the 1.9% per year increase over 1981 - 1986.

- The slow population growth rate results from modest assumptions in the amount of the forecasted net migration (in-migration minus out-migration) to Edmonton. (Planning and Building Department, 1987):

1987	-1,600
1988	- 200
1989	1,600

1.2 Age Distribution

The population age distribution is important from a housing perspective because different age groups generally have differing housing requirements. Young adults in the 20 - 24 age group generally seek rental accommodation, while persons in the family formation years of 25 - 34 are usually in search of their first home purchase. Persons in the middle years from 35 to 54 traditionally consider a move-up in housing quality, while the 54 + groups can be "empty-nesters", seniors looking for specialized accommodation, or be non-movers (Gruen, et al, 1982, p. 17).

Past Age Distribution

- During 1981-1986, the 25-34 age group increased by nearly 17,000, accounting for 33% of the total population increased of 50,300. This group accounted for 23% of the 1986 population.

- During the same period, the 35-44 age group increased by 14,000, accounting for 28% of the total population increase and 13% of the 1986 population.

Future Age Distribution

- In the period 1986 to 1990, the 20-24 age group declines by 9,400 (10% of total), the 25-34 age group declines by 3,100 while the 35-44 age group increases by 17,000 (16% of total). The population bulge remains in the 25-34 age group which has 21% of the total population. The 65+ age group increases by nearly 10,000 persons. (Table 1.2)

- These changes in the age distribution of the population, assuming no significant economic changes, could have the following impacts on housing:

  - the decline in the 20-24 age group would create a generally soft rental market;

  - the lack of growth in the 25-34 age group would provide little strength for the first-time buyer market;

  - the strong growth in the 35-44 group would suggest that the move-up market has the potential for demand increases.

  - the growth in the 65+ age group could create an ongoing demand for seniors housing.

However, as discussed below and in section 1.3, economic conditions will significantly influence these demographic considerations.

1.3 Household Changes

With lower population growth, an aging population profile and moderate economic growth, household growth in Edmonton will be lower than experienced over 1981 - 86.

Past Household Changes

- Between 1981 - 1986, 26,600 new households were created in Edmonton, an average of 5,300 per year, bringing the total number of households to 224,400 in 1986.

- The number of persons per household declined from 2.63 in 1981 to 2.54 in 1986.

Future Household Changes

The relationship between the population/age profile and household formation can be explored by a technique which calculates the likelihood that individuals in particular age groups are the head of a household (headship rates).

A study of household formation and headship rates in Canada (Smith, 1984), found that the large increase in the number of households since 1961 was due mainly to increases in non-family households (single-person households and households of unrelated persons). This growth of non-family households was facilitated primarily by an increasing real affordability and availability of housing. Other influencing factors include an increase in the numbers of young adults and social trends such as the increase in divorce rates. Economic variables were found to influence housing demand of all age groups but were of particular impact on the youngest age group (15-24).

In view of these conclusions on the relationship between economic variables and headship rates, the City's recent economic forecasts are significant (City of Edmonton, Forecast Committee, June 1987). The key findings of the forecasts are:

- Growth of the Alberta economy over 1987-1990 will average 2.6% per year compared to -.35% over 1981-1986.

- Edmonton's unemployment rate will average 11.5% over 1987-1990 compared to 10.3% over 1981-1986.

- Real interest rates (prime rate minus consumer price increases), over 1987-1990 will remain high at 5.6%. The rates were even higher at 6.6% over 1981-1986.

The combined impact of modest economic growth, persistent high local unemployment and high real interest rates is expected to reduce headship rates over the next several years, especially in the under 35 age groups. (Table 1.3)

These expectations are incorporated in the age-specific headship rates as projected in Appendix 1. The reduction in headship rates is concentrated in 1987 and 1988 in the younger age groups. No reductions were anticipated for the older age groups because of their greater economic security. The key features of the forecasts include:

- In the period 1987 to 1988, approximately 3,100 new households will be formed and average persons per household will be 2.53 persons per unit.

- In the period from 1988 to 1990 there will be an increase of approximately 3,400 households per year, and household size will decline slightly to 2.51.

- The projections indicate a significant decline in the rate of household formation compared with recent years:

Period	Average Number of New Households Per Year
1981 - 1986	5,318
1987 - 1988	3,087
1988 - 1990	3,379

- The household formulation projections from Table 1.3 and Appendix 1 are combined with an assessment of economic factors to prepare the housing starts forecast in Section 4.

Table 1.1

City of Edmonton, Population 1981 - 1986

Year	Population	Increase	Percentage Increase
1980	505,773		
		15,432	3.1
1981	521,205		
		30,109 [1]	5.8
1982	551,314 [1]		
		8,771	1.6
1983	560,085		
		3,915	0.8
1984	563,000		
		4,773	0.8
1985	567,773		
		3,737	0.6
1986	571,506		

Source: 1986 Civic Census, City of Edmonton
1984-1985, Planning and Building Department, Estimates
1987 City Forecast Committee

[1] Includes annexation, 8,719 persons (not including institutional population)

Table 1.2

City of Edmonton, Population Projection and Age Distribution, 1981-1990

Age Group	Observed [1] 1981 Population	%	1983 Population	%	1986 Population	%	Projected [2] 1990 Population	%
0 - 19	145,190	28	159,499	28	157,022	28	162,890	27
20 - 24	74,786	14	77,373	14	68,334	12	58,952	10
25 - 34	112,286	22	123,318	22	129,043	23	125,965	21
35 - 44	60,348	12	66,663	12	74,635	13	92,069	16
45 - 54	50,895	10	52,668	9	52,567	9	54,135	9
55 - 64	38,808	7	41,149	8	44,933	8	46,976	8
65 +	38,892	7	39,415	7	44,972	8	54,752	9
TOTAL	521,205	100	560,085	100	571,506	100	595,729	100

[1]Source: Civic Census, City of Edmonton, various years
[2]Source: Corporate Forecasting Group, Planning and Building Department, City of Edmonton, 1987

Note: Totals may not add as a result of rounding.

Table 1.3

City of Edmonton, Household Growth, 1983-1990

Age Group	Observed 1983 Population	Headship Rate	Households[1]	1986 Population[1]	Headship Rate	Households	Projected 1990 Population	Headship Rate	Households
15 - 24	123,106	.245	30,161	109,012	.235	25,618	94,318	.233	21,976
25 - 34	123,318	.515	63,509	129,043	.539	69,554	125,965	.537	67,643
35 - 44	66,663	.555	36,998	74,635	.581	43,363	92,069	.581	53,492
45 - 54	52,668	.565	29,757	52,567	.599	31,488	54,135	.599	32,427
55 - 64	41,149	.575	23,661	44,933	.601	27,005	46,976	.601	28,233
65 +	39,145	.600	23,649	44,972	.609	27,388	54,752	.609	33,344
TOTAL	446,319	.465	207,735[1]	455,162	.470	224,415	468,215	.477	237,115

Source: City of Edmonton, Planning and Building Department, 1987

[1]Approximate households based on actual population figures.

PART 2 - HOUSING SUPPLY

This part of the report outlines housing supply components including existing housing stock, new housing additions, housing absorptions, residential demolitions, units under construction, residential land supply and servicing activity.

2.1 Housing Stock

The growth rate in housing stock over 1981 - 1986 (+15%) and households (+13%) has been in excess of the population increase (+10%), reflecting the trend towards smaller households in Edmonton.

- The total number of housing starts over 1981 - 1986 in Edmonton was 30,439; most of these starts occurred between 1981 and 1983 (Table 2.1).
- Total starts over 1981-1986 were comprised of 47% single family starts, 15% row housing units and 38% apartment units.
- Figure 1 shows that residential housing starts have fluctuated considerably from year to year both in quantity and type.

2.2 New Housing Starts

- Housing starts in 1986 totalled 1,910, (1,813 single units, 90 new row house units and 7 apartment units), a 3% decline from the 1985 total (Figure 1).
- Most housing starts were located in the north (25%), west (24%), and southwest (27%) sectors of the city (Map 1), a distribution similar to that of 1984 and 1985.
- Starts to April 1987 totalled 520 (455 single units, 4 row housing units and 61 apartment units). During the same period in 1986, 658 units were started (625 single units and 33 row housing units).

2.3 Housing Absorption

Housing absorptions are the number of new units which are occupied each year. The number includes all housing completions in a particular year plus (or minus) the change in housing units which are completed and unoccupied between January 1 and December 31 of the year.

- Each year since 1981, more units have been absorbed than started reducing the inventory of newly completed and unoccupied units from 2,277 units in December 1981 to 103 units in December 1986 (Table 2.2).
- Absorption of multiple-family units averaged nearly 6,500 a year during 1982 and 1983. In 1984, however, absorption dropped to 1,600 units. In 1985 and 1986 absorption fell further to 407 and 183 units.
- Absorption of single family units has ranged between 2,600 and 3,000 units each year between 1982 and 1984. In 1985, however, absorption dropped 38% to 1,636 units; in 1986, 1,937 units were absorbed.

2.4 Residential Demolitions

A number of housing starts can be considered as replacement stock for residential demolitions.

- Between 1981-1986 demolitions totalled 1,682 units or 280 units per year average, with 66% single family units.

- Demolitions in 1986 totalled 295 units, 66% of which were single family units.

2.5 Housing Units Under Construction

The number of units presently under construction indicates the volume of units which will soon be on the market.

- Total units under construction in April 1987 was 626 (560 single family, 4 row house units, and 51 apartment units). This figure has been constantly declining from a high of 7,700 units in July of 1982 as a result of the rapid decline in the number of apartment units under construction and the lack of speculative building.

2.6 Residential Land Supply

The supply of vacant residential land in suburban areas is an important aspect of housing supply and is summarized in Table 2.3 (City of Edmonton, Planning and Building Department, 1987). City sectors are shown on Map 1.

One of the critical aspects of residential land supply is the supply of subdivided and serviced lots for single family units.

- There is a supply of 4,048 of serviced, single family lots city-wide.

- The supply of subdivided and serviced lots for single family units ranges from 214 - 1,611 units in the various city sectors, while serviced land for multiple family housing (measured in units), ranges between 604 units and nearly 8,00 units (Figure 2).

- In addition to the serviced land supply, there is a large amount of unserviced, unsubdivided land in approved and authorized Area Structure Plans. This supply can accommodate 72,000 single family lots. On a sectoral basis, the supply ranges from 7,000 lots in the northeast to 18,500 lots in the west. The unserviced land is sufficient for 47,000 multiple family units. On a sectoral basis, the supply ranges from 4,600 units in the west to 15,500 units in the north.

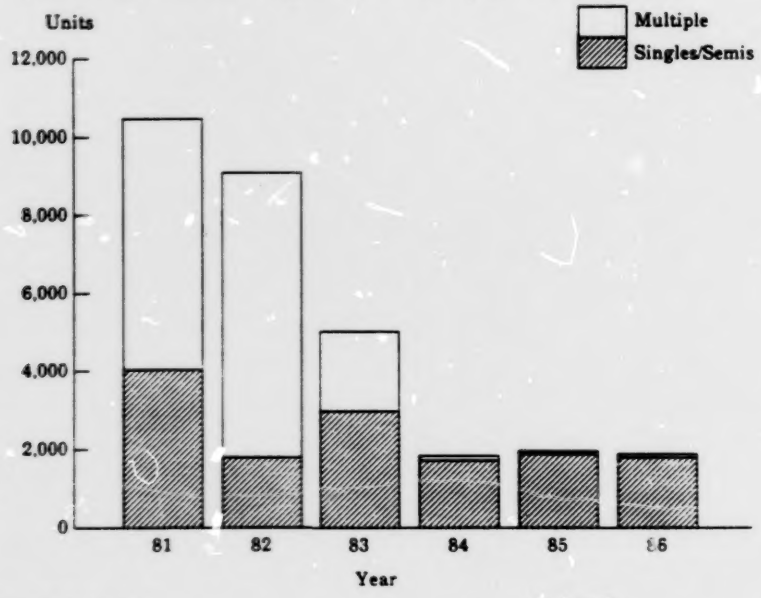
2.7 Residential Servicing

In addition to the supply of subdivided and serviced lots specified in Table 2.3, a number of lots for single family units are serviced each year.

- In 1986, 1,285 single family lots were serviced compared to 698 in 1985. This activity was considerably less than previous years; for example, in 1980, 3,856 single family units were serviced.

Figure 1

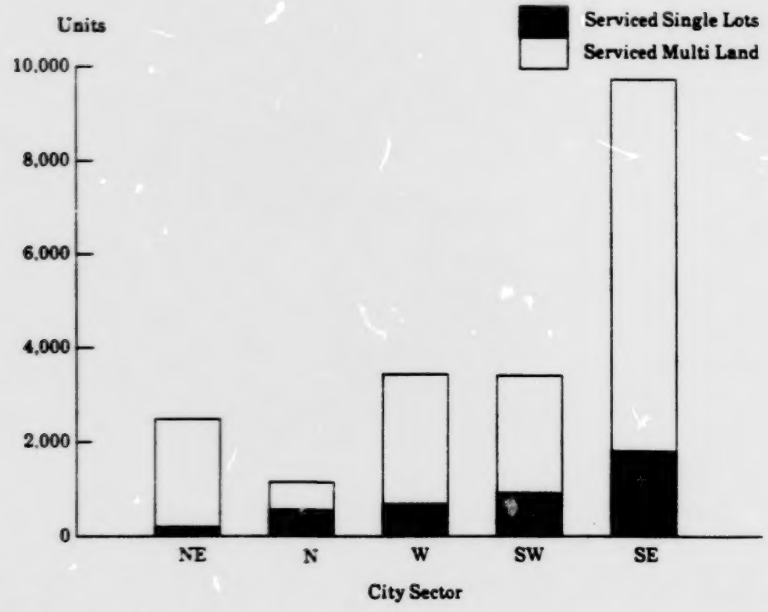
Edmonton Housing Starts by Type, 1981-1986



Source: Table 2.1

Figure 2

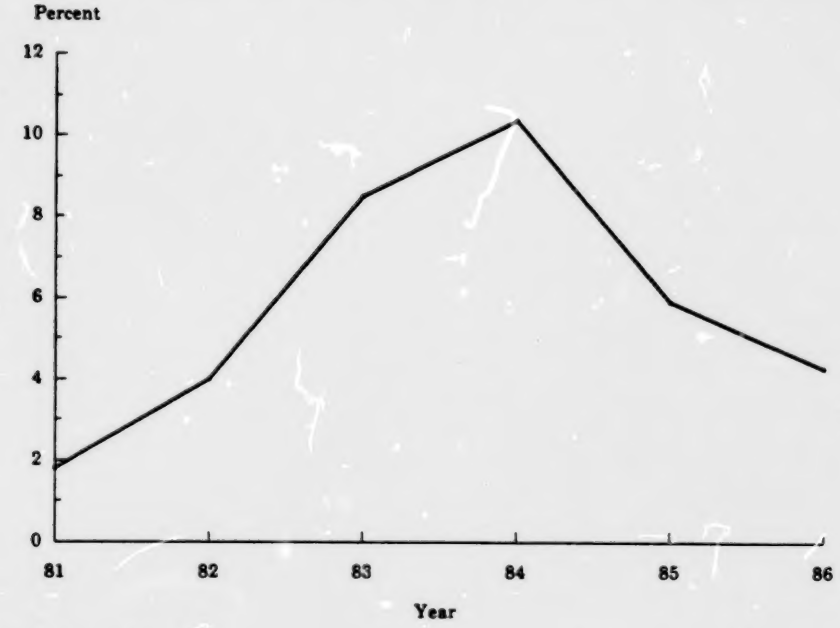
Serviced Residential Land Supply



Source: Table 2.3

Figure 3

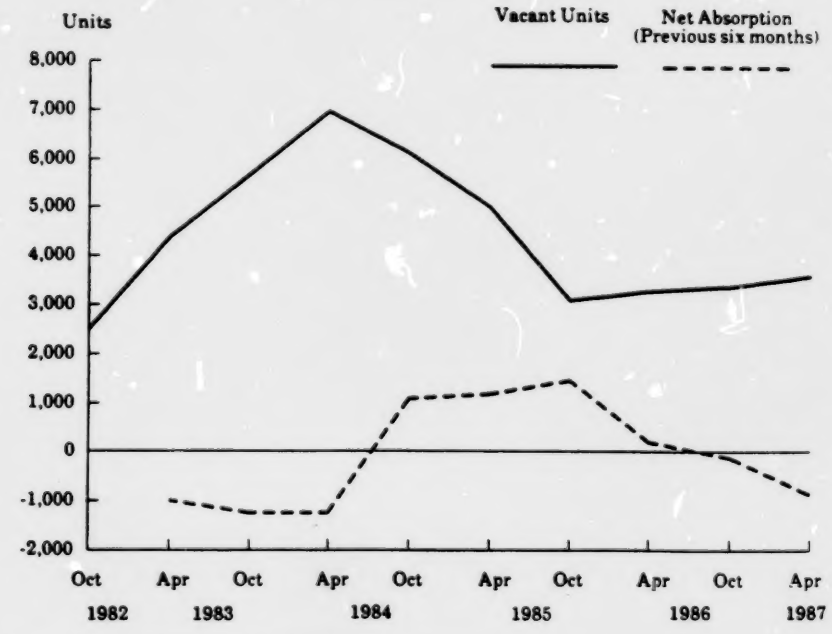
Edmonton Rental Vacancy Rate, 1981-1986



Source: Table 3.2

Figure 4

Edmonton Apartment Vacancies and Absorption, 1982-1987



Source: CMHC and Planning and Building Department

- Servicing has decreased sharply, reflecting the industry's desire to reduce the inventory of serviced lots.

- The 1986 servicing was distributed as follows: north (22%), west, (18%), southwest, (53%), southeast, (4%), and northeast, (3%).

- In 1987, approximately 1,300 single family lots are expected to be serviced. The servicing will be distributed as follows: the west (38%), the southwest (29%), the southeast (8%) and the north (25%).

Table 2.1

City of Edmonton, Housing Starts 1981 - 1986

	Single Family		Row Housing		Apartments		Total	
Year	Units	%	Units	%	Units	%	Units	% Change Over Year Previous
1981	4,046	38	2,411	23	4,058	39	10,515	+2.4
1982	1,811	20	1,350	15	5,950	65	9,111	-13
1983	3,003	59	682	14	1,371	27	5,056	-44
1984	1,750	93	116	6	11	1	1,877	-63
1985	1,890	96	21	1	59	3	1,970	+5
1986	1,813	95	90	5	7	0	1,910	-3
TOTAL	34,006	39	16,129	19	34,510	42	84,645[1]	

Source: Canada Mortgage and Housing Corporation, 1986.

Table 2.2

City of Edmonton, Housing Unit Absorption, 1982-1986

Year	Completions[1] Units	Completed and Unoccupied Inventory at Year-End Units	Absorptions[2] Units
1982			
Single Family	2,254	727	2,829
Row/Apartments	7,294	1,459	6,810
Total	9,550	2,186	9,639
1983			
Single Family	2,473	190	3,010
Row/Apartments	5,271	584	6,146
Total	7,742	774	9,156
1984			
Single Family	2,540	93	2,637
Row/Apartments	1,198	197	1,585
Total	3,738	290	4,222
1985			
Single Family	1,596	53	1,636
Row/Apartments	295	85	407
Total	1,891	138	2,043
1986			
Single Family	1,929	45	1,937
Row/Apartments	154	58	181
Total	2,083	103	2,118

Source: Planning and Building Department, CMHC figures.

[1]Housing completions during calendar year, CMHC.
[2]Include completions and the change in the inventory of completed and unoccupied units.

Note: Numbers may not total exactly.

Table 2.3

City of Edmonton, Residential Land Supply[1] (in units)

City Sector (see Map 1)	(1) Subdivided and Serviced[1]	(2) Total Subdivided	(3) Approved ASPs[2] (Unserviced, Unsubdivided Land)	(4) Authorized ASPs (Unserviced, Unsubdivided Land	(5) Total
Northeast					
Single Family	214	214	6,886	0	7,100
Row Housing	1,240	1,240	2,308	0	3,548
Apartments	1.073	1,073	2,297	0	3,370
Total	2,527	2,527	11,491	0	14,018
North					
Single Family	576	576	16,183	0	16,759
Row Housing	290	290	8,044	0	8,334
Apartments	314	314	7,478	0	7,792
Total	1,180	1,180	31,705	0	32,885
West					
Single Family	716	716	1,540	17,076	19,332
Row Housing	406	406	590	5,260	6,256
Apartments	2,363	2,363	590	4,835	7,788
Total	3,485	3,485	2,720	27,171	33,376
Southwest					
Single Family	931	931	4,506	9,910	15,347
Row Housing	895	895	1,369	885	3,149
Apartments	1,606	1,606	1,619	3,191	6,416
Total	3,432	3,432	7,494	13,986	24,912
Southeast					
Single Family	1,611	1,611	10,370	5,677	17,658
Row Housing	1,369	1,369	3,473	1,235	6,095
Apartments	6,580	6,580	3,473	547	10,600
Total	9,560	9,560	17,316	7,477	34,353
Total (excluding Inner City)					
Single Family	4,048	4,048	39,485	32,663	76,196
Row Housing	4,200	4,200	15,784	7,398	27,382
Apartments	11,936	11,936	15,457	8,573	35,966
Total	20,184	20,184	70,726	48,634	139,544

Source: Planning and Building Department, May, 1987, Residential Staging Information, 1986

[1]Supply measured in potential dwelling units as of December 31, 1986.

PART 3 - MARKET TRANSACTIONS/OUTCOMES

A series of outcomes result from the interaction of the supply of housing and the demand by households. Key market transactions are outlined here.

3.1 Real Estate Listings and Sales

The volume of market transactions (listings and sales) are illustrative of the supply of and demand for housing. With the onset of recession in 1982, the number of listings increased while the number of sales dropped substantially, resulting in a sales to listings ratio of only 25% - a sharp decline from the 1981 figure of 41% (Table 3.1). Since 1982, the sales to listings ratio has risen markedly.

- The residential real estate market showed considerable strength in 1986. Total residential listings for 1986 were 16,621 and sales were 8,028 for a sales to listings ratio of 48%.

- The 1986 sales to listings ratio decreased slightly from 1985's value of 54% but the average selling price remained stable at $74,300.

3.2 Rental Vacancy Rate

Rental vacancy rates rose dramatically in 1983 and 1984 but moderated in the last half of 1985 when the rate dropped to 4.4% in October. The April 1987 rate (the survey is taken yearly in April and October) increased to 5.4% (Table 3.2 and Figure 3).

- The vacancy rate varied greatly across the city in April 1987 from 3.4% in the southwest area to a high of 7.8% in the northeast area of the city.

- The rental vacancy rate also varied by apartment type:

	April 19867
Bachelor	6.4%
One Bedroom	5.5%
Two Bedroom	5.1%
Three Bedroom	4.7%

Vacancy rates fluctuated so markedly because of rapid changes in the demand for and supply of apartment units. Large numbers of new units entered the market in 1982 and 1983 when demand was dropping, and when demand began to rise in 1984, construction of new apartment units had virtually ceased. Net absorption of apartment units between April, 1984 and October, 1986 averaged about 115 units a month. However, between October, 1986 and April, 1987, about 144 apartment units a month in net terms have been vacated (Figure 4). The vacancy rate moved up in response to continued out-migration because of a weak economy, and a general movement of households from rental apartments to houses. Given these trends, vacancy rates will probably average between 4% and 5% during 1987.

3.3 Housing Costs

This section deals with the price of housing, both rental and ownership, the carrying costs of ownership and the relative affordability of housing compared to income.

Price of Ownership Housing

Table 3.3 shows the fluctuation in sales prices for two typical houses in Mill Woods between 1978-1987 (Royal LePage, Survey of Canadian House Prices). Mill Woods was chosen because of data availability and because the houses represent typical Edmonton homes in the average price range. The Royal LePage data shows:

- The price of a detached bungalow peaked at $90,000 in 1982, and then declined by 22% to $70,500 in in January of 1985. By April 1986, the price had increased to $81,000. Since then, prices dropped 3% by January 1987 before increasing to $79,000 in April 1987.

- The price of the more spacious detached two storey home peaked in 1981, then declined by 26% to $95,000 in January, 1985. Since then, the price of this house type also increased, reaching $110,000 in April, 1986 before dropping to $108,500 in April, 1987.

- The price of houses in other Edmonton areas show a similar trend.

Apartment Rents

- Rent for an average two bedroom apartment in the Edmonton area reached a high of $496 in 1982 (CMHC, Rental Vacancy Survey October, 1983). Rents for two bedroom apartments as of April, 1987 have declined to an average of $461 per month. The average rent for other apartment types were:

	April 1987
Bachelor	$307
One Bedroom	$377
Two Bedroom	$461
Three Bedroom	$512

- These average rents do not include rental extras such as free month's rent.

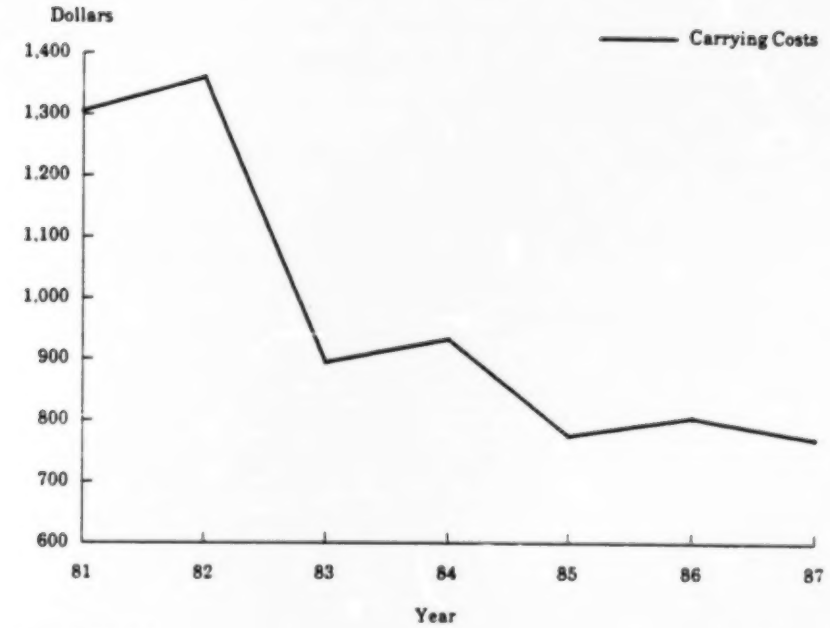
Ownership Carrying Charges

The cost of housing discussion provides additional insights when it is expanded to monthly carrying charges. Table 3.4 and Figure 5 illustrate expenses and carrying charges for the Mill Woods bungalow over 1981-1987. Carrying charges include the house price, 10% down payment, mortgage insurance, mortgage rates (5 year term) and taxes.

- Monthly carrying charges for a Mill Woods bungalow on April, 1987 averaged $777 per month.

Figure 5

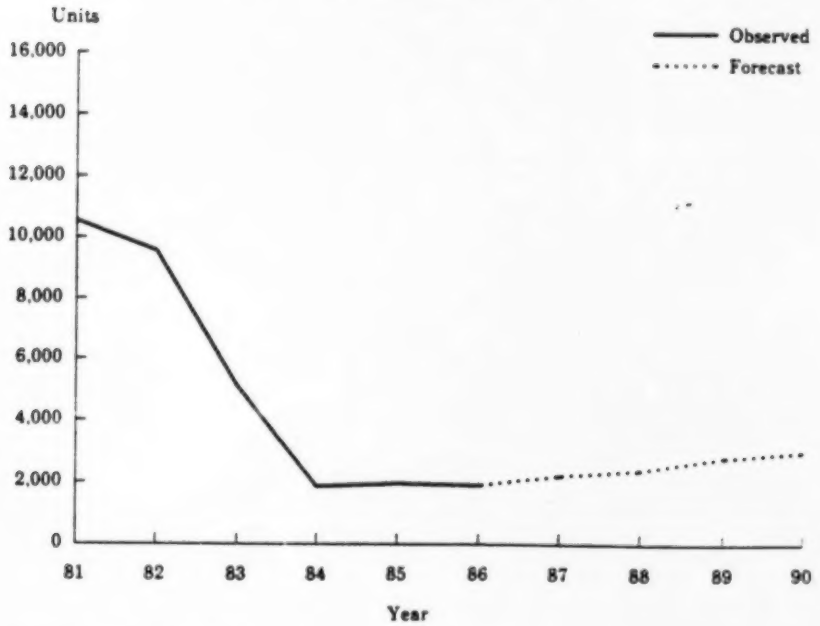
Carrying Costs, 1981-1987



Source: Table 3.4

Figure 6

Housing Starts, 1981-1990

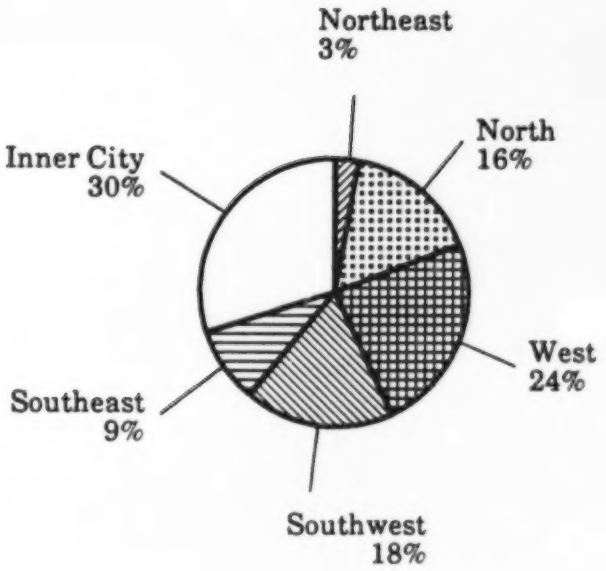


Source: Table 2.1 and Table 4.2

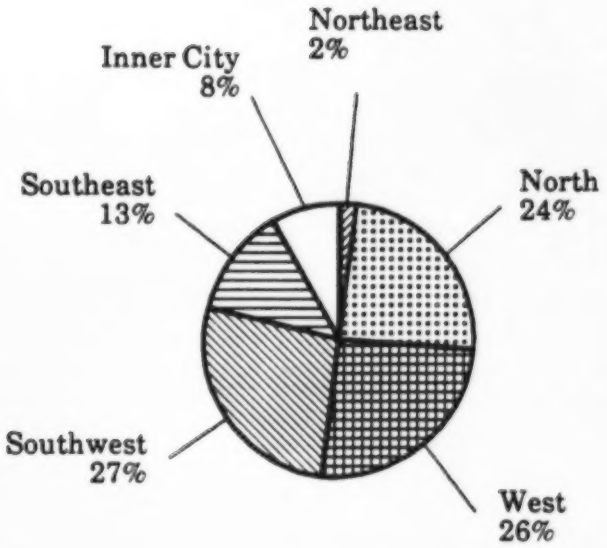
Figure 7

Distribution of Residential Building

Building Permits
1983-1986



Starts Forecast
1987-1990



Source: Table 4.2

- Carrying charges were highest in 1982 at $1,359 per month; since then carrying charges have fallen 43% to $777 per month (Figure 5).

- Carrying charges are very sensitive to interest rate fluctuations. With fixed house prices, down payment and taxes, a 1% change in interest rates causes carrying charges to increase or decrease by $53 per month on the sample house.

Affordability

This section deals with the cost of housing in relation to income. Data discussed includes median household income in Edmonton, the number of households that can afford different types of accommodation and average shelter costs.

Table 3.5 shows median household incomes in Edmonton and the Canadian consumer price index. Observations on the changes between 1981 and 1986 include:

- In nominal terms, median household income increased 20% to $31,000 in 1983, but decreased to $30,000 in 1984 before increasing to $31,100 in 1986.

- In real terms however, (accounting for inflation), median household income decreased by nearly 6%

A measure of affordability can be calculated by translating ownership or rental costs into yearly rates and assuming that 30% of the total gross income is spent on shelter. Using this procedure, the number of Edmonton households able to afford comfortably the shelter type can be calculated as follows:

- Monthly ownership costs of $777 (1987 costs, see Table 3.4), would require approximately $31,000. Approximately 50% of Edmonton households could afford a detached bungalow in Mill Woods.

- A two bedroom rental apartment costing $457 per month would require a household income of approximately $18,300; 73% of Edmonton households could afford this shelter.

These figures are approximate calculations; alternate housing preferences and financing arrangements provide a wide array of shelter financing options. Housing is also available in Edmonton at much lower prices in the form of town houses (Castle Downs, $43,000 or Mill Woods, $40,000) condominium apartments (Castle Downs, $15,000 or Clareview, $19,000) and rental walk-ups.

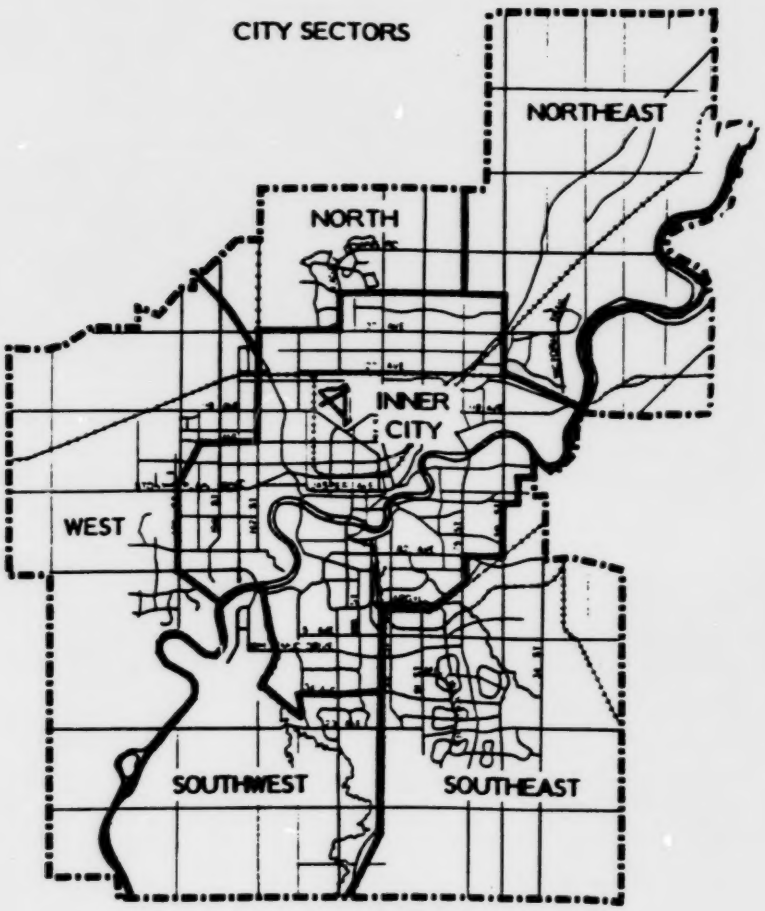
These shelter and financing options combined with available assisted housing and recently lower shelter costs make housing a generally affordable commodity in Edmonton.

3.4 City Sector Profile

Table 3.6 summarizes housing market activity for each of the six city sectors. Map 1 outlines the boundaries of the sectors. Highlights are:

- the change in average house prices over 1986-1987 ranges between -1.2% to 1.9%.
- Housing starts in 1986 show that the southwest sector had the most starts followed by the north and west sectors. This distribution continues the trend begun in 1983 that saw the focus of building activity move from the southeast towards the west, north and southwest.
- Residential servicing reflects the distribution of building activity. Most of the 698 single family lots serviced in 1986 were in the southwest (42%), north (27%) and west (22%) sectors of the city.

MAP 1 CITY SECTORS



SOURCE: General Municipal Plan Map 5.1

Table 3.1

City of Edmonton, Real Estate Listings and Sales, 1981-1986

Year	Total Listings	Total Sales	Sales to Listing Ratio (%)	Average Price ($)
1981	18,293	7,466	41%	91,438
1982	19,451	4,873	25%	91,405
1983	19,056	5,605	29%	85,667
1984	17,955	6,002	33%	79,306
1985	16,457	8,867	54%	74,175
1986	16,621	8,028	48%	74,305

Source: Edmonton Real Estate Board
"Multiple Listing Service" listings only

Table 3.2

Edmonton Rental Vacancy Rate, 1981-1987

Year	Month	Vacancy Rate (in percent)[1]
1981	April	2.5
	October	1.1
1982	April	3.4
	October	4.6
1983	April	7.5
	October	9.5
1984	April	11.4
	October	9.5
1985	April	7.4
	October	4.4
1986	April	4.5
	October	4.1
1987	April	5.4

Source: CMHC

[1] CMHC survey includes privately initiated buildings containing 6 units or more.

Table 3.3

City of Edmonton, Example House Prices (in current dollars)

		Detached Bungalow[1]	Detached Two-Storey[2]
1981	June	88,000	128,000
1982	July	90,000	127,000
1983	July	79,000	115,000
1984	July	73,500	102,000
1984	October	72,000	98,000
1985	January	70,500	95,000
1985	October	75,500	105,000
1986	January	77,000	107,000
1986	April	81,000	110,000
1987	January	78,500	108,500
1987	April	79,500	108,500

Source: Royal LePage Survey of Canadian House Prices

[1]A 3-bedroom bungalow, with one car garage, 1½ bathroom and 111 sq. metres (1,200 square feet), 5-8 years old in Mill Woods.
[2]A 4-bedroom two-storey with two car garage, 2½ bathrooms, fireplace, family room and is 186 sq. metres (2,000 square feet), 5-8 years old in Mill Woods.

Table 3.4

City of Edmonton, Monthly Carrying Charges - Ownership

	1981	1982	1983	1984	1985	1986	1987
House Prices[1]	$88,000	$90,000	$78,000	$73,500	$70,500	$81,000	$79,500
Less 10% Downpayment	8,800	9,000	7,800	7,350	7,050	8,100	7,950
Mortgage Amount	79,200	81,000	70,200	66,150	63,450	72,900	71,550
High Ratio Insurance (@ 1.5%)	1,188	1,215	1,053	992	952	1,093	1,073
Total Mortgage Amount	80,388	82,215	71,253	67,142	64,402	73,993	72,623
Interest Rate[2]	19.0%	19.25%	13.5%	15.25%	12.5%	11.0%	10.5%
Monthly Payment[3]	$1,239	$1,282	$811	$849	$688	$712	$674
Taxes[4]	66	77	83	83	88	100	103
Carrying Charge (per month)[5]	$1,305	$1,359	$894	$932	$776	$812	$777

[1]Royal Trust Survey of Canadian House Prices, July of each year, (except for 1985, 1986, and 1987 when April's price is used) Mill Woods Detached Bungalow
[2]5 Year term, July of each year except for 1985, 1986, and 1987 when April's rate is used.
[3]Amortized over 25 years.
[4]Assuming $1,236 annual taxes for 1987.
[5]Other costs such as utilities and maintenance are not included.

Table 3.5

City of Edmonton, Median Household Income 1981-1986

Year	Median Income (in dollars)[1]	% Change	Consumer Price Index[2]	% Change
1981	25,800	16	100.0	12
1982	27,300	6	110.8	11
1983	31,000	13	117.2	6
1984	30,000	-3	122.3	4
1985 (e)	30,800	2.5	124.3	3
1986 (e)	31,100	1	128.3	3

1 Population Research Laboratory, University of Alberta, Median Household Income. 1985, 1986 estimate by Planning and Building Department based on increase on average weekly earnings.

2 Statistics Canada, Annual Average Index, all items.

Table 3.6

City of Edmonton, City Sector Description of Housing Market Activity

Description	Inner City	Northeast	North	West	Southwest	Southeast
Average Price 1987[1] (January)	N/A	$74,000	$78,000	$82,000	$110,000	$78,500
Percentage Change 1986-1987	N/A	-	+1.2	1.2	1.8	1.9
Housing Starts 1986						
Single/Semi	96	93	444	453	474	253
GRM	8	0	0	0	49	0
Apt	7	0	33	0	0	0
Total	111	93	477	453	523	253
Share of 1986 housing starts	6%	5%	25%	24%	27%	13%
Vacant Single Lots[2]	N/A	462	889	1,004	942	2,248
Vacant Residential Land (Hectares)[3]	N/A	695	1,545	314	626	1,147
1985 Single Family lot servicing	0	34	279	231	439	52

1 Average price is for a single detached bungalow, Royal LePage survey of Canadian house prices .
2 Subdivided and serviced lots for single family residential units Status of Residential Land Report, 1986
3 Raw land for residential purposes in authorized and/or approved Area Structure Plans.

PART 4 - FORECASTS

This part of the report presents housing forecasts and highlights key study findings and implications.

4.1 Housing Forecast

This report uses two methods to forecast housing starts:

(i) headship rates as influenced by economic forecasts (Section 1.3);

(ii) an econometric model for forecasting housing starts (City of Edmonton Planning and Building Department, 1987).

The two different methods are used because of their complementary nature. The headship method provides only a total starts forecast based on a combination of demographic and economic forecasts. The econometric model provides forecasts of total, multi-family and single family starts with a specific, quantified relationship to selected economic variables.

Based on a comparison of the forecasts from the two methods and a subjective assessment of the factors influencing housing starts, a preferred forecast is identified.

Method 1: Headship Rates Influenced by Economic Conditions

The headship rate forecasts discussed in section 1.3 (and presented in detail in Appendix 1) provide the following forecast of household growth (rounded to the nearest 100):

Year	Increase in Households
1987	2,900
1988	3,100
1989	3,100
1990	3,600

Increases in the number of households though, will not result in an equivalent number of housing starts because a certain amount of household growth is accommodated by the existing housing market. Households (defined as an occupied dwelling unit) either rent or own housing and growth in the number of households will include both renter and owner households. Growth in renter households can largely be accommodated by the existing stock of apartments and other rental accommodation such as row housing and basement suites in houses. Increases in owner households, though, will require housing starts because there is virtually no inventory of vacant ownership housing.

An estimate of the number of housing starts that will result from increases in the number of households was derived by estimating changes in the amount of renter households based on forecasted apartment vacancy rates (City of Edmonton, Forecast Committee, June, 1987), and subtracting new renter households from yearly increases in the total number of households. The

resulting figures (presented below), indicate the number of additional owner households and thus the number of housing starts required to meet demand:

	Housing Starts Based on Household Growth
1987	2,900
1988	2,400
1989	2,600
1990	3,100

Method 2: Econometric Model for Housing Starts

The second method forecasts single family, multiple family and total starts based on causal relationships between housing starts and economic factors. An econometric model of the Edmonton economy (City of Edmonton Planning and Building Department, 1986), forecasts selected economic variables including housing starts. A series of econometric equations were developed and tested to determine the degree to which selected economic variables explained housing starts activity.

The variables, which are described below, are also specified by the model:

i) total housing starts in Edmonton are largely determined by the current real mortgage rate, apartment vacancy rates from the previous year, and by real new house prices (from two years previous);

ii) single family starts are influenced most strongly by the real mortgage rate for the previous year, by changes in the current year's real price of new housing, and the inventory of newly-completed and unoccupied houses from the previous year;

iii) multi-family starts were calculated as the difference between total starts and single family starts (City of Edmonton Planning and Building Department, 1986).

When the economic forecasts variables for Alberta and Edmonton (City Forecast Committee, 1987) are inserted into the econometric equations, the following forecasts resulted:

Year	Single Family Starts	Multi-family Starts	Total Starts
1987	1,874	537	2,411
1988	2,089	943	3,032
1989	2,184	979	3,163
1990	2,174	752	2,926

Those forecasts show that both total and single housing starts will increase moderately each year until 1990, when activity reduces slightly. real mortgage rates are expected to decline over this period, but the impact of falling rates is more than offset in 1990 by the drop in the real price of new houses in 1988. In effect, the lower value of housing as a financial investment in the previous two years reduces the future demand for new housing.

In examining the outputs from the econometric model, the forecasts for single family starts appear too low, while the multiple family and total starts are probably too high. The forecast for single family starts appears to be low because the model is acting on indicators from the weak economy of 1986. Demographic growth also influences housing starts, and the household forecasts discussed earlier indicate a higher number of single family housing starts than are forecast by the econometric model.

Preferred Housing Starts Forecasts

A preferred forecast of housing starts incorporating both demographic and economic variables is as follows (Table 4.1, Figure 6).

Year	Forecast	Rationale
1987	2,200	The positive factor is lower mortgage rates. Oil prices have firmed considerably (to around $18) from the low point in the summer of 1986, and house prices have stabilized, leading to higher activity levels in 1986.
1988	2,400	The tone of the market starts to improve as economic growth increases over 1987. Mortgage rates are stable or decline slightly, the unemployment rate declines slightly and there is some positive migration to Edmonton.
1989	2,800	A continuing improvement in the economy, combined with a slight decline in real mortgage rates and unemployment rates increase housing starts.
1990	3,000	Stability of economic variables and continued household growth increase starts slightly.

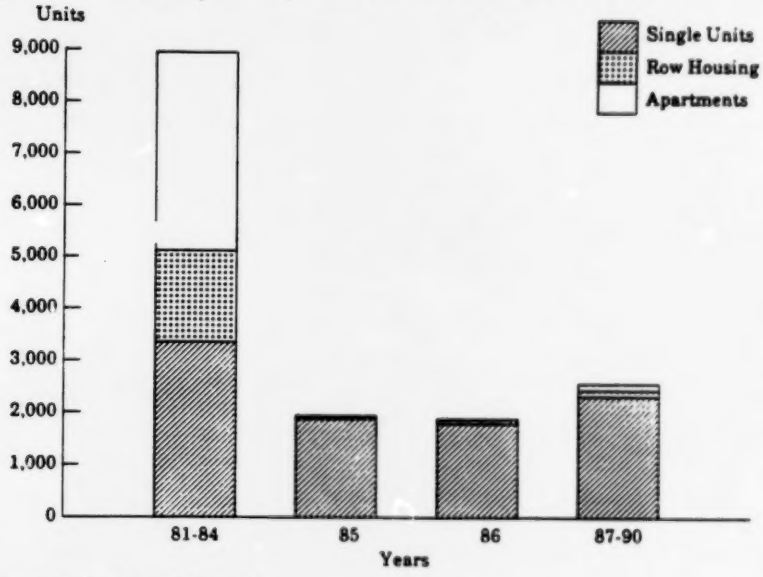
4.2 Distribution of Housing Starts

Housing starts in the years 1983 to 1986 shifted in emphasis away from the inner city, the northeast and the southeast. Areas of increased growth were the west, southwest and north. This shift is expected to continue and is reflected in the distribution of total housing starts to city sectors in Table 4.2 and illustrated in Figure 7.

There has also been a distinct shift away from apartment and ground related multiple starts to single family/semi-detached starts (95% of total starts in 1986). This emphasis is expected to continue in 1987 and 1988 with more apartments and ground related multiples appearing in the 1988-1990 period (Figure 8).

Figure 8

Average Housing Starts and Mix Per Year



Source: Table 2.1 and Table 4.2

4.3 Residential Land Supply

The supply of serviced residential land at the end of 1987 (outlined in Section 2.6), is adequate to satisfy 1.7 years demand for single family units at 1987 forecasted absorption rates. The total supply of residential land (serviced and unserviced) in approved and authorized Area Structure Plans is sufficient to meet demand for single family units for over 20 years. The supply of serviced land for multi-family units is also in excess of 20 years supply.

4.4 Serviced Land Supply Forecast by Sector

At forecasted growth rates, the supply of subdivided and serviced lots for single family units in different sectors of the city ranges from 0.5 years in the north to 5 years in the southeast (See Table 4.3). This supply is adequate through 1987. At forecasted growth rates and present servicing rates, it can be expected that an increase in servicing rates in single family units will be required in the north, west and southwest sectors by 1988.

Table 4.1

City of Edmonton, Population and Housing Forecast, 1981-1990

Year	Average Population Increase (per Year)	Household Increase (per Year)	Housing Starts (per Year)
1981-1983	+19,000	7,400	8,227
1984	+2,900 [1]	1,786	1,877
1985	+4,800 [1]	1,899	1,970
1986	+5,004	1,700	1,800
1987	+4,557	2,900	2,200
1988	+5,613	3,100	2,400
1989	+7,096	3,100	2,800
1990	+8,901	3,600	3,000

Source: Planning and Building Department, 1987

[1]Estimate

Table 4.2

City of Edmonton, Housing Starts Forecast by City Sector and Type

Sector[1]	1985	1986	1987	1988	1989	1990
Inner City	78	124	170	190	225	240
Northeast	74	80	50	45	55	60
North	530	478	530	580	670	720
West	593	456	570	625	730	780
Southwest	541	525	590	650	755	810
Southeast	154	247	290	310	365	390
Total	1,970	1,910	2,200	2,400	2,800	3,000
Housing Type						
Single Family	1,890	1,813	2,100	2,200	2,500	2,600
Row Housing	21	90	50	100	150	200
Apartments	59	7	50	100	150	200
Total	1,970	1,910	2,200	2,400	2,800	3,000

Source: Planning and Building Department, 1986

1 Actual distribution for 1985 and 1986. Forecasted distribution for 1987 to 1990. See Map 1 for Sector definition.

Table 4.3

City of Edmonton, Inventory of Serviced Residential Land
At the end of 1987
(in years)

City Sector	Year-end Supply 1987[1]	Supply of Subdivided and Serviced Lots in Years[2]
NORTHEAST		
Single Family	228	5.0
Row Housing	1,238	+20
Apartments	1,071	+20
NORTH		
Single Family	227	0.5
Row Housing	277	+20
Apartments	301	+20
WEST		
Single Family	734	1.4
Row Housing	392	+20
Apartments	2,349	+20
SOUTHWEST		
Single Family	651	1.2
Row Housings	880	+20
Apartments	1,591	+20
SOUTHEAST		
Single Family	1,451	5.2
Row Housing	1,364	+20
Apartments	6,575	+20

Source: Planning and Building Department, May 1987, Residential Staging Report, 1986

[1]Calculated by taking the 1986 year end supply, adding 1987 forecasted servicing and subtracting 1987 forecasted housing starts.
[2]Calculated by dwelling type by dividing the potential units on subdivided and serviced lots by the forecast of housing starts by sector by type for 1987 (Table 4.2).

APPENDIX

City of Edmonton
Household Growth, 1983 - 1990

Age Group	1983 Population	1983 Headship Rate	1983 Households	1984 Population	1984 Headship Rate	1984 Households	1985 Population	1985 Headship Rate	1985 Households
15-24	123,106	0.235	28,930	115,727	0.235	27,196	110,838	0.235	26,047
25-34	123,318	0.533	65,728	125,616	0.535	67,205	127,158	0.537	68,284
35-44	66,663	0.575	38,331	69,231	0.577	39,946	71,958	0.579	41,664
45-54	52,668	0.593	31,232	52,350	0.595	31,148	51,903	0.597	30,986
55-64	41,149	0.594	24,443	42,831	0.596	25,527	44,309	0.598	26,497
65+	39,415	0.608	23,964	41,127	0.608	25,005	43,210	0.608	26,272
TOTAL	446,319	0.476	212,629	446,882	0.483	216,027	449,376	0.489	219,749
INCREASE				563		3,399	2,494		3,722

Age Group	1986 Population	1986 Headship Rate	1986 Households	1987 Population	1987 Headship Rate	1987 Households	1988 Population	1988 Headship Rate	1988 Households
15-24	109,012	0.235	25,618	103,454	0.233	24,105	99,295	0.233	23,136
25-34	129,043	0.539	69,554	129,647	0.539	69,880	129,316	0.538	69,572
35-44	74,635	0.581	43,363	78,087	0.581	45,369	82,000	0.581	47,642
45-54	52,567	0.599	31,488	52,770	0.599	31,609	53,073	0.599	31,791
55-64	44,933	0.601	27,005	45,732	0.601	27,485	46,502	0.601	27,948
65+	44,972	0.609	27,388	47,327	0.609	28,822	49,701	0.609	30,268
TOTAL	455,162	0.493	224,415	457,017	0.497	227,269	459,887	0.501	230,356
INCREASE	5,786		4,666	1,855		2,854	2,870		3,087

Age Group	1989 Population	1989 Headship Rate	1989 Households	1990 Population	1990 Headship Rate	1990 Households
15-24	96,383	0.233	22,457	94,318	0.233	21,978
25-34	127,817	0.537	68,638	125,965	0.537	67,643
35-44	86,572	0.581	50,298	92,069	0.581	53,492
45-54	53,621	0.599	32,119	54,135	0.599	32,427
55-64	46,800	0.601	28,127	46,976	0.601	28,233
65+	52,266	0.609	31,830	54,752	0.609	33,344
TOTAL	463,459	0.504	233,469	468,215	0.506	237,115
INCREASE	3,572		3,113	4,756		3,646

Source: Planning and Building Department, June, 1987

HOUSING DATA SOURCES

	SOURCE	DATA
1.	Canada Mortgage and Housing Corporation	Housing Statistics Report (Monthly) - housing starts, under construction, completions, absorption rates and inventory of newly completed and unoccupied units Rental Vacancy Survey (Semi-Annually) - rental vacancy rates and average rental prices
2.	Statistics Canada	Census Data (Every 5 Years): - head of household by age cohort - family/non-family households New House Price Index (Monthly) - index of the price of new housing by land and building components
3.	City of Edmonton	Status of Residential Land Report (Annually): - building permits issued - inventory of vacant lots at various stages of development by neighbourhood Edmonton Demographic Indicators 1986 (Periodically) - detailed population data for the 608 census enumeration areas - population projections for Edmonton to the year 2002 Residential Population Densities in Edmonton (Periodically): - persons per dwelling unit data for each land use districts by unit type

		Population Projections for the City of Edmonton 1987-2002 - population forecast including age distribution - migration, birth and death rates City Forecast Committee (Periodically) - forecast of socio-economic variables A Housing Starts Forecasting Model for Edmonton (Research Paper No. 2) An Edmonton Housing Market Model (Research Peper No. 10) - an econometric model of housing starts in Edmonton Residential Staging Information, (Semi-Annually) - evaluates the supply of and demand for residential land by sector of the City
4.	Gruen, et. al.	Demographic Changes and Their Effects on Real Estate Markets in the 1980's. Urban Land Institute, Washington, D.C., 1982.
5.	Royal Trust Realtor	Survey of Canadian House Prices (Quarterly): - average price data for several housing types in several neighbourhoods of Cities across Canada
6.	Population Research Laboratory - University of Alberta	Socio-Economic Survey (Annually): - population, income and shelter costs in Edmonton
7.	Edmonton Real Estate Board	Multiple Listing Service Data (Monthly): - detailed listings, sales price and sales type data for MLS
8.	Royal LePage	Canadian Real Estate - Market Survey (Annually): - analysis of real estate investment opportunities

9.	Province of Alberta Department of Planning	Residential Mortgage Foreclosures Data: Residential Construction Survey (Monthly) - housing starts, vacancy rates for urban places in Alberta
10.	Lawrence Smith	'Household Headship Rates, Household Formation, and Housing Demand in Canada' Land Economics, Vol. 60, No. 2, May, 1984